

REMARKS

Claims 1- 20 are pending in the application. Claims 1, 2, 8 and 16 have been amended.

Claims 1-20 were rejected under 35 USC §102(e) as being anticipated by US Patent No. 6388399 *Eckel*. Applicant respectfully asserts that *Eckel* does not teach or suggest a module for an LED traffic signal with all the limitations of Claims 1 – 20.

The present invention relates to the field of traffic signals and more specifically to an LED traffic signal module. In the field of traffic signaling, it is important to be able to directly monitor the status of the light element. In order to do, voltage across the light source, current through the light source, light output emitted by the light source, module input voltage and module input current are important parameters to monitor. It is the purpose of the present invention to be able to monitor these parameters and to generate status signals accordingly. *Eckel's* circuitry is for building automation and does not teach or suggest monitor each of these parameters.

Independent Claims 1, 8 and 16 all recite a light sensor mounted adjacent to the light element/LED array that measures the light output of the light element/LED array. The light sensor (450) in *Eckel's* figure 18 measures ambient light, i.e. the light in a particular area of the building. The lights in a particular area are turned on or off depending on ambient light level in the area. See, e.g. *Eckel* at Col. 17, lines 14 – 24. The ambient light sensor in *Eckel* is not mounted adjacent to the LED light element/LED array and does not measure the light emitted by the specified light source. Further, there is no teaching or suggestion in *Eckel* to monitor the light output of LEDs as the LEDs in *Eckel* are used to providing visual feedback to a user. See, *Eckel* at col. 28, lines 56 – 63. The light elements in *Eckel* are fluorescent and incandescant lights for office and home lighting. See, e.g. *Eckel* at col. 9, line 63 – Col. 10, line 3 and Col. 12, lines 15 – 18. *Eckel* does not teach or suggest a traffic signal module with all the limitations of Independent Claims 1, 8 and 16. Accordingly, Claims 1 – 20 are patentable.

Independent Claims 1, 8 and 16 all have the further limitations of a voltage detecting circuit for measuring the light element voltage and a current monitoring circuit for monitoring the current flowing across the light element/LED array. *Eckel* does not teach or suggest a module all the limitations of Claims 1, 8 or 16 including a voltage detecting circuit and a current monitoring circuit. The circuit 62 of *Eckel* is used to monitor the voltage of the power supply. See, e.g. *Eckel* at Col. 10, line 41-42. It does not monitor the voltage directly across the light element. The Examiner asserts that because *Eckel* "mentions the ability to monitor 'changes in power, current or voltage to determine if lamps have been burned out'" *Eckel* discloses a voltage detecting circuit and a current monitoring circuit. As acknowledged and discussed in response to the last Office Action, *Eckel* in column 5, line 50-51 mentions the ability to monitor "changes in power current or voltage and to determine if lamps have been burned out".

However, a circuit that measures changes in power, current or voltage does not teach or suggest a circuit that precisely monitors the current flowing through a light source as the present invention does. Accordingly, *Eckel* does not teach or suggest a traffic signal module with all the limitations of Independent Claims 1, 8 and 16 and Claims 1 – 20 are patentable.

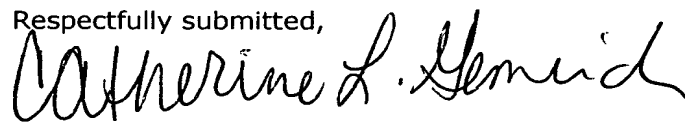
Independent Claim 8 includes further limitations including a limitation related to an emergency disconnect. The momentary disconnect in *Eckel* cannot be equated with the emergency disconnect of the present invention. An emergency disconnect for a traffic signal is used if the LED does not respond to an off control signal. It results in a permanent open signal. *Eckel's* momentary disconnect is a momentary contact switch to momentarily disconnect the external power supply. See, e.g. *Eckel* at Col. 10, lines 31-35. The emergency disconnect is not a momentary or temporary disconnect and thus the momentary disconnect of *Eckel*. Accordingly, *Eckel* does not teach or suggest a traffic signal with all the limitations of Claim 8 and Claims 8 and 9 are patentable over *Eckel*.

In response to the statement on page 6, lines 18-19, applicant acknowledges that the Examiner rejected the Claims under 35 USC §102(e) as being unpatentable over *Eckel*. For the reasons set forth above, Applicant respectfully disagrees with the Examiner's assertion that *Eckel* discloses, teaches or suggests each and every element of the claimed invention.

CONCLUSION

Applicant asserts that all of the objections have been obviated and, therefore now respectfully requests withdrawal of the objections, and allowance of the application.

Respectfully submitted,



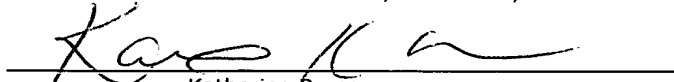
Catherine L. Gemrich
Attorney for Applicant
Registration Number 50473

ORUM & ROTH LLC
53 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604-3606
TELEPHONE: 312.922.6262
FAX: 312.922.7747

GELCORE LLC
10762743
Page 8

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450, on April 11, 2005.


Katherine Bruce